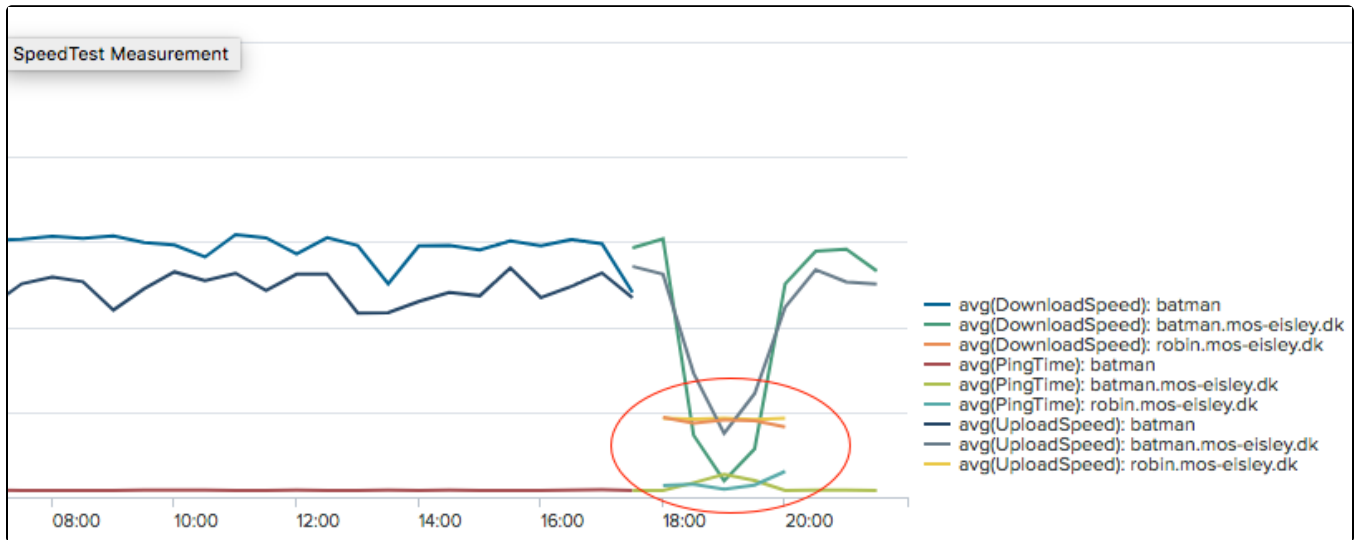


Langsomt netværk..

Efter at have sat Download / Upload / Ping igang på min Plex Media Server (robin) - kunne jeg i [splunk](#) hurtigt se at 100 mb var max... underligt...



Efter at have gloet på fysisk netværk og skiftet kabel som det første, sagde switch lysene også bare "100 mb"

I linux:

```
root@robin:/etc/network# lspci | awk '/[Nn]et/ {print $1}' | xargs -i% lspci -ks %
01:00.0 Network controller: Qualcomm Atheros QCA9565 / AR9565 Wireless Network Adapter (rev 01)
Subsystem: AzureWave QCA9565 / AR9565 Wireless Network Adapter
Kernel driver in use: ath9k
Kernel modules: ath9k
02:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8101/2/6E PCI Express Fast/Gigabit Ethernet
controller (rev 07)
Subsystem: ASUSTeK Computer Inc. RTL810xE PCI Express Fast Ethernet controller
Kernel driver in use: r8169
Kernel modules: r8169
root@robin:/etc/network#

root@robin:~# sudo ethtool enp2s0 | grep Speed
Speed: 100Mb/s
```

```
bnp@robin:~$ ethtool enp2s0
Settings for enp2s0:
    Supported ports: [ TP MII ]
    Supported link modes:   10baseT/Half 10baseT/Full
                           100baseT/Half 100baseT/Full
    Supported pause frame use: No
    Supports auto-negotiation: Yes
    Supported FEC modes: Not reported
    Advertised link modes:  10baseT/Half 10baseT/Full
                           100baseT/Half 100baseT/Full
    Advertised pause frame use: Symmetric Receive-only
    Advertised auto-negotiation: Yes
    Advertised FEC modes: Not reported
    Link partner advertised link modes:  10baseT/Half 10baseT/Full
                                         100baseT/Half 100baseT/Full
    Link partner advertised pause frame use: Symmetric Receive-only
    Link partner advertised auto-negotiation: Yes
    Link partner advertised FEC modes: Not reported
    Speed: 100Mb/s
    Duplex: Full
    Port: MII
    PHYAD: 0
    Transceiver: internal
    Auto-negotiation: on
    Cannot get wake-on-lan settings: Operation not permitted
    Current message level: 0x00000033 (51)
                           drv probe ifdown ifup
    Link detected: yes
```

RTL8101/2/6E bør jo være Gigabit, men det virker mere som et 100 MB netkort og der er mange hits på issues med det...

Linket [her](#) antyder dog at det er driveren der rapporterer forkert tilbage

Nå, lidt Google bragte mig til: <https://www.unixblogger.com/the-pain-of-an-realtek-rtl8111rtl8168-ethernet-card/> da jeg kiggede mest på driver versionen: r8169

Og jeg gik igang... installerede, byggede og prøvede...

Absolut intet virkede og pludselig var nettet helt væk, den nye driver kunne ikke loades og den gamle kunne jeg ikke få tilbage..

.....

Nå, jeg fandt den gamle driver r8169.ko under /lib/modules/4.15.0-32-generic/kernel/drivers/net/ethernet/realtek/r8169.ko - men kunne ikke indsætte den, da jeg kørte 4.15.0-33-generic

Så en apt-get purge linux-image-4.15.0-33-generic - og genbygning af grub's list

Og jeg var tilbage... til udgangspunktet 😞

Næste forsøg: <https://dontpressthat.wordpress.com/realtek-r8101/>

Herefter blev det legetid med en **USB Ethernet adapter**, den var uden data eller navn, men lsusb kunne give mig:

```
bnp@robin:~$ lsusb
Bus 002 Device 004: ID 04f2:b52b Chicony Electronics Co., Ltd
Bus 002 Device 005: ID 13d3:3423 IMC Networks
Bus 002 Device 002: ID 0438:7900 Advanced Micro Devices, Inc.
Bus 002 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 003: ID 0b95:772a ASIX Electronics Corp. AX88772A Fast Ethernet
Bus 001 Device 002: ID 0438:7900 Advanced Micro Devices, Inc.
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 004 Device 002: ID 059f:106f LaCie, Ltd
Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
bnp@robin:~$
```

Så AX88772A driveren blev hentet og bygget.

Indsæt af USB:

```
Aug 31 20:14:36 robin kernel: [ 105.515381] enx9cebe80d4b36: unregister 'asix' usb-0000:00:12.0-1.1, ASIX AX88772A USB 2.0 Ethernet
Aug 31 20:14:36 robin systemd-timesyncd[639]: Network configuration changed, trying to establish connection.
Aug 31 20:14:36 robin systemd-timesyncd[639]: Synchronized to time server 91.189.91.157:123 (ntp.ubuntu.com).
Aug 31 20:14:38 robin kernel: [ 108.227938] usb 1-1.1: new high-speed USB device number 5 using ehci-pci
Aug 31 20:14:39 robin kernel: [ 108.349099] usb 1-1.1: New USB device found, idVendor=0b95, idProduct=772a
Aug 31 20:14:39 robin kernel: [ 108.349107] usb 1-1.1: New USB device strings: Mfr=1, Product=2, SerialNumber=3
Aug 31 20:14:39 robin kernel: [ 108.349111] usb 1-1.1: Product: DAD
Aug 31 20:14:39 robin kernel: [ 108.349116] usb 1-1.1: Manufacturer: Bizlink Corp.
Aug 31 20:14:39 robin kernel: [ 108.349119] usb 1-1.1: SerialNumber: 0A7EF5
Aug 31 20:14:39 robin kernel: [ 108.351395] ASIX USB Ethernet Adapter:v4.22.0 http://www.asix.com.tw
Aug 31 20:14:39 robin kernel: [ 109.073010] eth%d: status eplin, 8 bytes period 11
Aug 31 20:14:39 robin kernel: [ 109.073607] eth0: register 'asix' at usb-0000:00:12.0-1.1, ASIX AX88772A USB 2.0 Ethernet, 9c:eb:e8:0d:4b:36
Aug 31 20:14:39 robin systemd-udevd[1472]: link_config: autonegotiation is unset or enabled, the speed and duplex are not writable.
Aug 31 20:14:39 robin kernel: [ 109.086539] asix 1-1.1:1.0 enx9cebe80d4b36: renamed from eth0
Aug 31 20:14:39 robin networkd-dispatcher[658]: WARNING:Unknown index 6 seen, reloading interface list
Aug 31 20:14:39 robin systemd-networkd[569]: eth0: Interface name change detected, eth0 has been renamed to enx9cebe80d4b36.
Aug 31 20:14:39 robin systemd-timesyncd[639]: Network configuration changed, trying to establish connection.
Aug 31 20:14:39 robin systemd-timesyncd[639]: Synchronized to time server 91.189.91.157:123 (ntp.ubuntu.com).
```

Hm... bemærk

```
eth0: Interface name change detected, eth0 has been renamed to enx9cebe80d4b36.
```

Og suk, Ubuntu 18.04 hvorfor skal ALT være Yaml (skram'mel) og hvad var der galt med gode gamle /etc/network/interfaces

Nu er det /etc/netplan/50-cloud-init.yaml - logisk ikke....

```
network:
  ethernets:
    enp2s0:
      addresses: []
      dhcp4: true
    enx9cebe80d4b36:
      addresses: []
      dhcp4: true
      optional: true
  version: 2
```

Genstart:

```
sudo netplan apply
```

Verify:

```
root@robin:/etc/netplan# ifconfig
enp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.0.150 netmask 255.255.255.0 broadcast 10.0.0.255
    inet6 fe80::3ad5:47ff:fece:65f9 prefixlen 64 scopeid 0x20<link>
    ether 38:d5:47:ce:65:f9 txqueuelen 1000 (Ethernet)
    RX packets 13900 bytes 4517960 (4.5 MB)
    RX errors 0 dropped 547 overruns 0 frame 0
    TX packets 4194 bytes 1024947 (1.0 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enx9cebe80d4b36: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet6 fe80::9eeb:e8ff:fe0d:4b36 prefixlen 64 scopeid 0x20<link>
    ether 9c:eb:e8:0d:4b:36 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2 bytes 427 (427.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 1728 bytes 566202 (566.2 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1728 bytes 566202 (566.2 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Så netkortet er fundet og konfigureret (dog uden kabel p.t.)